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EXAMINER
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ART UNIT	PAPER NUMBER
2171	7

DATE MAILED: 05/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

Office Action Summary	Application No.	Applicant(s)
	10/038,412	BELLEW, MATTHEW A.
	Examiner	Art Unit
	Cheryl M Fernandes	2171

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 February 2004*.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-38* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-38* is/are rejected.

7)☒ Claim(s) *9 and 28* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 October 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some *   c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *2*.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Oath/Declaration

1.   The oath or declaration is defective. A new oath or declaration in compliance

with 37 CFR 1.67(a) identifying this application by application number and filing date is

required. See MPEP §§ 602.01 and 602.02.

> The oath or declaration is defective because the date that the oath was signed by
> the inventor is missing.

Drawings

2.   The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5)

because they do not include the following reference sign(s) mentioned in the

description:

- Elements 222 (first part), 224 (looked-up field), and 226 (special character)

  related to Figure 2 are mentioned on page 9, lines 1-4, but are missing from

  the drawing.

- Elements 600 (computer system), and 612 (system bus) related to Figure 6

  are mentioned on page 14, lines 9 and 14, but are missing from the drawing.

A proposed drawing correction or corrected drawings are required in reply to the Office

action to avoid abandonment of the application. The objection to the drawings will not

be held in abeyance.

3.   The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5)

because they include the following reference sign(s) not mentioned in the description:

- Elements 614a-b (Software components) are depicted in Figure 6, but are not mentioned in the specification.

A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to because Figure 6, element 604 should be labeled 'System Memory' instead of 'Mass Storage' in accordance with the description on page 14, lines 7-25. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

5. The disclosure is objected to because of the following informalities:

- Page 9, line 13: 'target table 204' should read 'target table 212';

- Page 9, line 13: 'table 202 or 204' should read 'table 202 or 212'.

Appropriate correction is required.

Claim Objections

6. The following claims are objected to because of the following informalities:

- Claim 9, line 8; Claim 28, line 11: There is a redundant use of the word 'that'.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 10-14 and 29-33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7.   Claim 10 recites the limitation "the second one or more fields to be looked up" in lines 2-3. There is insufficient antecedent basis for these limitations in the claim.

8.   Claims 10 and 29 recite the limitation "said first look-up field". It is unclear whether the first look-up field is included in the first part or is a part of the multi-part form.

9.   Claim 10 recites the limitation "a corresponding one of the second one or more fields to be looked up" in line 3. It is unclear whether the second one or more fields to be looked up correspond to one or all of the parts of the multi-part form.

10.   Claim 29 recites the limitation "a corresponding one of said first one or more fields to be looked up" in line 4. It is unclear whether the first one or more fields to be looked up correspond to one or all of the parts of the multi-part form.

11.   Claims 10 and 29 recite the limitation "concatenated with said first part". It is unclear whether the first look-up field, second part, or corresponding one or more of the second/first one or more fields is concatenated with said first part.

12.   Claims 11 and 30 recite the limitations "second one or more of a third plurality of

fields of a third table". There is insufficient antecedent basis for these limitations in the

claim.

13.   Claims 12-14 depending from claims 10 and 11 above therefore inherit the

aforenoted deficiency.

14.   Claims 31-33 depending from claims 29 and 30 above therefore inherit the

aforenoted deficiency.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 9-14, 19, 28-33, and 38 are rejected under 35 U.S.C. 102(e) as being

anticipated by US Publication Number 2002/0013779 A1 by Sridhar.

15.   Referring to claims 9 and 28, Sridhar discloses a method (see Abstract) and

apparatus (see para. 37-38) respectively, comprising:

storage medium having stored therein a plurality of programming instructions

('computer implemented logic', para. 38), when executed, operate the apparatus

to:

- present a first plurality of fields of a first table for selection for use in a data

    processing operation (see Summary, para. 5; 'supplier table' attributes (Fig. 1,

    element 104), para. 33; 'patient table' and 'physician table' (Fig. 9, elements

    902 and 904), para. 63,101 (Fig. 16A));

- receive a selection of a first field that is a member of said first fields ('price'

    attribute of supplier table, paragraphs 33-34; para. 66, 85, 102 (Fig. 16B));

- determine whether said selected first field is a first designated look-up field

    (see Abstract) for looking up first one or more of a second plurality of fields of

    a second table ('part table' (Fig. 1, element 106), para. 33-34; para. 64-65,

    79-81, 103);

- present said second plurality of fields for selection for use in said data

    processing operation (para. 35, Fig. 2), if it is determined that that said

    selected first field is a first designated look-up field for looking up first one or

    more of said second plurality of fields of said second table (see Summary,

    para. 9; para. 86-88, 96-98, 100, 104 (Fig. 16C and D)).

    and at least one processor coupled to the storage medium to execute the

    programming instructions ('Internet-enabled handheld computers', para.38).

16.   Referring to claims 10 and 29, Sridhar discloses that the second plurality of fields

is presented in a multi-part form (Fig. 4, Fig. 9), including a first part, said first look-up

field ('SupplierParts' (Fig. 4); 'secondary.patient_id' attribute of secondary table (Fig. 9,

element 910)), and a second part, a corresponding one of the second one or more

fields to be looked up ('supplier' (Fig. 4); 'patient_id' attribute of patient table (Fig. 9,

element 902)), concatenated with said first part in a predetermined manner (Fig. 4;

para. 66 (Fig. 9)).

17. Referring to claims 13 and 32, Sridhar discloses that the second part, a

corresponding one of said first one or more fields to be looked up, is concatenated with

said first part, said first look-up field, employing one or more predetermined special

characters (Refer to discussion above addressing claims 10 and 29 with regard to the

predetermined use of characters such as the "." and "=" characters; also see para. 85

with regard to formatting structure).

18. Referring to claims 14 and 33, Sridhar discloses that the said one or more

predetermined special characters comprises at least a selected one of ".", ":", ".about.",

"!", "@","#", "$", "%", "[circumflex over ( )]", "&", "*", "-", "+", "=", "?", "<", and ">"

(Refer to discussion above for claims 13 and 32 with regard to the use of "." and "," as

concatenating characters).

19. Referring to claims 11 and 30, Sridhar discloses:

receiving a selection of a second field that is a member of said second fields,

determining whether said selected second field is a second designated look-up field for

looking up first one or more of a third plurality of fields of a third table, and presenting

said third plurality of fields for selection if it is determined that said selected second field

is a second designated look-up field for looking up second one or more of said third

plurality of fields of said third table.

Refer to the last 3 limitations of claims 9 and 28 addressed above with regard to the above mentioned limitations of claims 11 and 30 (see para. 33 and 36-37 for reference to a third table).

20.   Referring to claims 12 and 31, Sridhar discloses:

-    each of said second plurality of fields is presented in a multi-part form, including a first part, said first look-up field, and a second part, a corresponding one of said first one or more fields to be looked up, concatenated with said first part in a predetermined manner (Refer to discussion of claim 10 above); and

-    each of said third plurality of fields is presented in a multi-part form, including said first and second parts, and a third part, a corresponding one of said second one or more fields to be looked up, concatenated with said second part in a predetermined manner (see Fig. 4 for presentation in multi-part form of first ('supplierParts'), second ('supplier'), and third parts ('parts.Name' and 'parts.Weight') of tables concatenated by periods).

21.   Referring to claims 19 and 38, Sridhar teaches the apparatus and method above, wherein the method further comprises:

specifying said first plurality of fields of said first table (Fig. 10 and 13[1]);

designating one or more of said specified first fields as look-up fields (see Abstract; para. 29); and

specifying target tables(parts table, Fig. 4) for said designated look-up fields

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[1] Figure 13 shows a table of referenced table fields of link table 1000 in Fig. 10.

(refer to parts table with Name and Weight fields in Fig. 4).

Claim Rejections - 35 USC § 103

22.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

23.   Claims 1-8 and 20-27 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Sridhar, and further in view of US Patent Number 5,619,688 issued to Bosworth et

al (hereafter Bosworth).

24.   Claims 15-17 and 34-38 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Sridhar as applied to claims 9 and 28 above, and further in view of

Bosworth.

25.   Referring to claims 1 and 20, Sridhar discloses an apparatus comprising:

storage medium having stored therein programming instructions, when executed,

operate the apparatus to:

- parse a data processing statement (para. 29, Fig. 3-4, 14[2]);

- identify table field or fields referenced in said data processing statement (Fig.

   10 and 13[3]);

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[2] Examiner asserts that the extracted data that is manipulated in para. 29, is parsed in order that the table
in Fig. 14 can show different fields within different tables. Figs. 3 and 4 also show the parsed data
processing statements in terms of the fields within the supplier and parts tables.
[3] Figure 13 shows a table of referenced table fields of link table 1000 in Fig. 10.

- determine, for each identified table field, whether the table field is a looked-up field (see Abstract; para. 29);

- identify a basis table (supplier table, Fig 4) of which non-looked up ones of said identified table field or fields are members (refer to supplier table with ID field in Fig. 4); and

- identify one or more target tables (parts table, Fig. 4) from which said looked-up one or ones of said identified table field or fields are to be looked up (refer to parts table with Name and Weight fields in Fig. 4);

- generating a SQL statement (para. 62); and

- if the data processing statement was determined to contain one or more fields to be looked up from one or more target tables, further including among said field or fields to be selected :

    said one or more fields to be looked up ('Part_id', Fig. 3 and 4) from said one or more target tables, and

    one or more JOIN clauses respectively joining said basis table and said one or more target tables (see Para. 46-47 related to Fig. 3 and 4); and

one or more processors coupled to the storage medium to execute the programming instructions ('Internet-enabled handheld computers', para.38).

26.   Referring to claims 2 and 21, Sridhar discloses that the second plurality of fields is presented in a multi-part form (Fig. 4, Fig. 9), including a first part, said first look-up field ('SupplierParts' (Fig. 4); 'secondary.patient_id' attribute of secondary table (Fig. 9,

element 910)), and a second part, a corresponding one of the second one or more

fields to be looked up ('supplier' (Fig. 4); 'patient_id' attribute of patient table (Fig. 9,

element 902)), concatenated with said first part in a predetermined manner (Fig. 4;

para. 66 (Fig. 9)).

27.   Referring to claims 3 and 22, Sridhar discloses: each of said second plurality of

fields is presented in a multi-part form, including a first part, said first look-up field, and a

second part, a corresponding one of said first one or more fields to be looked up,

concatenated with said first part in a predetermined manner (Refer to discussion of

claim 10 above); and each of said third plurality of fields is presented in a multi-part

form, including said first and second parts, and a third part, a corresponding one of said

second one or more fields to be looked up, concatenated with said second part in a

predetermined manner (see Fig. 4 for presentation in multi-part form of first

('supplierParts'), second ('supplier'), and third parts ('parts.Name' and 'parts.Weight') of

tables concatenated by periods).

28.   Referring to claims 4 and 23, Sridhar discloses that the second part, a

corresponding one of said first one or more fields to be looked up, is concatenated with

said first part, said first look-up field, employing one or more predetermined special

characters (Refer to discussion above addressing claims 10 and 29 with regard to the

predetermined use of characters such as the "." and "=" characters; also see para. 85

with regard to formatting structure).

29.   Referring to claims 5 and 24, Sridhar discloses that the said one or more

predetermined special characters comprises at least a selected one of ".", ":", ".about.",

"!", "@","#", "$", "%", "[circumflex over ( )]", "&", "*", "-", "+", "=", "?", "<", and ">"

(Refer to discussion above for claims 13 and 32 with regard to the use of "." and "," as

concatenating characters).

30.   Referring to claims 1, 15, 20, and 34, Sridhar fails to disclose:

           including with said generated SQL statement:

                    field or fields to be selected from said basis table and

                    a FROM clause enumerating said basis table, and

                    one or more corresponding ON clauses respectively specifying one

           or more corresponding conditions on which rows of said basis and

           said one or more target tables are to be joined, each of said one or

           more conditions comprising a corresponding look-up field;

31.   However, referring to claims 1, 15, 20, and 34, Bosworth shows:

           including with said generated SQL statement('query table', see

           Background, col. 1, line 36- col.2, line 54 for following limitations as well):

                    field or fields to be selected ('Employees.Name',

                    'Employees.Manager', Fig. 1A,B, col. 2, line 1 of query) from said

                    basis table (Employees, Managers tables) and a FROM clause

enumerating said basis table (col. 2, line 3 of query), and one or

more corresponding ON clauses (col.2, line 4 of query) respectively

specifying one or more corresponding conditions on which rows of

said basis and said one or more target tables are to be joined

(see 'WHERE' clause for condition, col.2, line 5 of query), each of

said one or more conditions comprising a corresponding look-up

field (Compensation Type= "salary", col. 2, line 5 of query);

32.   Referring to claims 6, 16, 25, and 35, Bosworth teaches the method and

apparatus above, wherein said JOIN clause is an OUTER JOIN clause (col. 10, lines

33-60; Fig. 12 and 37-38) .

33.   Referring to claims 7, 17, 26, and 36, Bosworth teaches the method and

apparatus above, wherein said JOIN clause is an INNER JOIN clause (col. 2, line 3 of

query).

34.   Referring to claims 8, 18, 27, and 37, Bosworth teaches the apparatus and

method above, wherein said SQL statement is a selected one of a SELECT (col. 2, line

1 of query; col. 8, line 48- col. 9, line 3), an INSERT, an UPDATE and a DELETE

statement.

Therefore it would have been obvious to a person of ordinary skill in the art at the

time the invention was made to modify Sridhar to include generating an SQL statement

to include a FROM clause to enumerate a basis table and an ON clause that links the

basis and target tables as taught by Bosworth.

The ordinary skilled artisan would be motivated to modify Sridhar to include a

FROM clause for the purpose of selecting the salaried employees from the Employees

table and then using the Managers table to determine each employee's Department

Number based on the name of the employee's manager (see col. 2, lines 6-10). In

addition, the ordinary skilled artisan would also be motivated to modify Sridhar to

include an ON clause for the purpose of joining a row of the Employees table to a row of

the Managers table if the Manager field of the Employees table equals the Manager

field of the Managers table (see col. 2, lines 25-32). Furthermore, Bosworth teaches a

database engine with the capability to retrieve data from the tables of a database

management system wherein the engine typically receives instructions, called queries,

to retrieve data stored in tables. Bosworth also teaches that said queries are usually

expressed in SQL wherein a query specifies the data to be retrieved and the

manipulations to be made to retrieved data.

Although not relied upon in the rejection, examiner respectfully notes several

references listed below wherein the references show that the ability to retrieve and

manipulate data is the primary advantage of SQL queries. Therefore examiner

respectfully asserts that Bosworth provides motivation for using SQL queries.

Conclusion

35.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

The following patents or publications are cited with respect to the advantages of SQL

being able to retrieve and manipulate data:

US Patent Number 5,548,755 issued to Leung et al. (col.1, lines 25-33)

US Patent Number 5,291,583 issued to Bapat (col.2, lines 53-55).

36.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Cheryl M Fernandes whose telephone number is (703)

305-3917. The examiner can normally be reached on 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Safet Metjahic can be reached on (703) 308-1436. The fax phone number

for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

CMF May 21, 2004

WAYNE AMSBURY
PRIMARY PATENT EXAMINER